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Kit Contents

- Main Tray Assembly
- DC to DC Converter Board (HP Part Number 0950–2993)
- *J280 Owner's Guide*
HP Part Number A2876–90013
- Antistatic bag
- Static Strap
- *Storage Tray Fan Kit (HP Part Number A2876–60011) with *Storage Fan Installation* manual (HP Part Number A4081–90010)
- Upgrade return materials

NOTE: Items marked with * are shipped in a separate container.

Installation Prerequisites

Before the J280 Upgrade can be performed both the requisite version of HP-UX and a supported graphics card must be installed (graphics card not required if system is used with a RS-232 terminal as the console).

Operating System

Verify that the HP-UX operating system is at the minimum level of 10.20. This software **must** be loaded on the system before performing this upgrade procedure.

Graphics Card Support

Verify that the graphics card(s) installed in your Model J200/210/210XC are supported on the Model J280. The **/usr/bin/graphinfo** command will display the current graphics card(s) information. Both HCRX8 and HCRX24Z cards will require a physical inspection of the card to verify the Z-Accelerator part number. The first 5 alpha-numeric characters on the Z Accelerators white label must read A4242. The Z-Accelerator is the small daughter card. If a graphics upgrade is required, it should be performed prior to the J280 Upgrade. The graphics card(s) supported on the Model J280 are:

- HP VISUALIZE-8, 24, 48, 48XP, EG and Dual EG graphics cards
- HCRX-8 (A4070A/B)
- HCRX-24 (A4071A/B)
- A4070A/B + A4242A (HCRX-8Z with the A4443A upgrade)
- A4071A/B + A4242A (HCRX-24Z with the A4443A upgrade)

NOTE: The COLOR/DUAL COLOR(A4077/78A) graphic card(s) will not work with HP-UX 10.20.

Tools

- Flat blade screwdriver
- 10 TORX driver (needed for Storage Tray Fan upgrade)
- Anti-static bag
- Static strap
- Safety glasses (needed for Model J280 Label change)

Associated Documentation

The following documents are associated with the upgrade kit.

- *J280 Service Handbook* (HP Part Number A2876–90039)
- *J280 Owner's Guide*(HP Part Number A2876–90013)
- *J Class Storage Drawer Fan Install Guide* (HP Part Number A4081–90010)
- *Model J280 Upgrade Instructions J Class Workstations*
HP Part Number A2876–90010 (This document)

Upgrade Procedures

The upgrade procedure consists of the following sections:

- Powering Off the System
- Removing the Front Bezel
- Removing the Main Tray Assembly
- Removing Memory DIMMs
- Installing the new J280 Main Tray Assembly
- Installing the Storage Tray Fan
- Changing the Model Label
- Replacing the Front Bezel
- Installing the DC to DC Converter
- Verifying system operation
- Filling out the return form and returning original parts

Powering Off the System

Before performing this upgrade procedure, observe the following precautions:

1. The workstation must be running HP-UX 10.20 or later to accommodate the J280 upgrade. If the workstation is running a version of HP-UX lower than 10.20, update the operating system software before continuing.
2. Determine the workstation's LAN ID using the **lanscan** command by entering the following:

`/usr/sbin/lanscan`

The output is similar to the following:

Hardware	Station	Dev	Hardware	Net-Interface	NM	Encapsulation	Mjr
Path	Address	lu	State	NameUnit	State	ID Methods	Num.
2.0.2	0x0800970ECC0	0	UP	lan0	UP	4 ETHER	52

After you install the new tray assembly and power on the system for the first time, you will be prompted for the LAN ID. Record that information here so you have a record of it:

EtherLAN ID _____-_____

You must supply the dash (–) between the first six digits and the last six digits.

3. Power down the system.
4. Unplug the system unit power cord and the power cords of any peripheral devices from ac wall outlets.
5. Unplug the system unit power cord from the ac input connector at the back of the system unit.

WARNING: To avoid electrical shock, make sure that you unplug the power cable from the wall outlet and the system unit before proceeding further.

CAUTION: The internal components of the workstation are susceptible to mechanical and electrostatic shock. To prevent such damage from occurring, observe the following precautions during the installation procedure:

- Stand on static-free mat
- Wear a static-grounding wrist strap to ensure that any accumulated electrostatic charge discharges from your body to ground. Attach the static-grounding wrist strap by following the instructions on the package that contains the strap. Be sure to attach one end of the strap to the system chassis.

Removing the Front Bezel

To remove the front bezel follow these steps:

CAUTION: Do not attempt to operate the workstation with the front bezel removed. The bezel is needed to ensure proper air flow for system cooling.

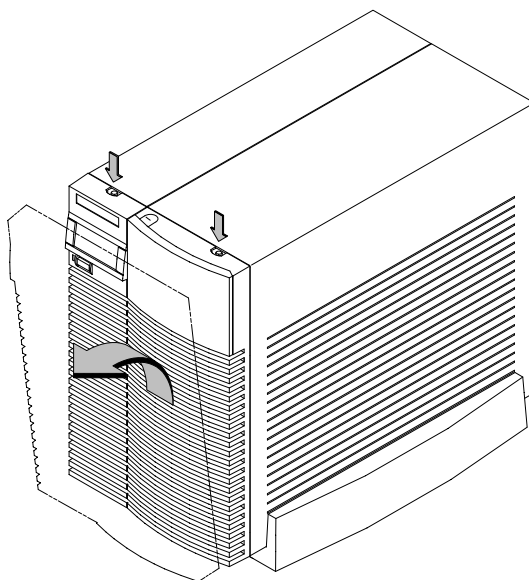


Figure 1. Removing the Front Bezel

1. Attach the static-grounding wrist strap by following the instructions on the package. Attach the the sticky end of the wrist strap to bare metal on the system unit.
2. Release the front bezel by pushing in the two locking tabs at the front of the system unit as shown in Figure 1.
3. Swing the panel down and pull up slightly so the two guide pins on the bottom clear their guides and lay the front bezel down.

Removing the Main Tray Assembly

To remove the Main Tray assembly follow these steps:

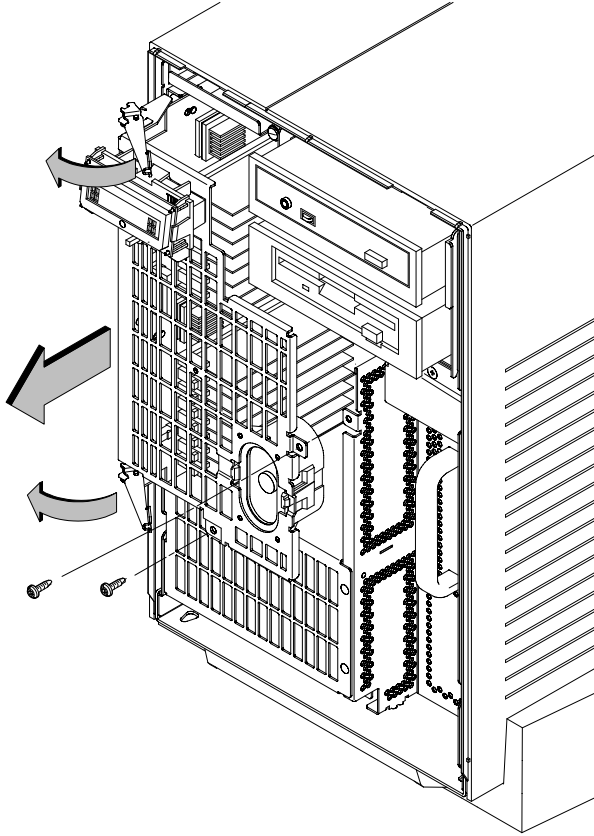


Figure 2. Removing the Tray Assembly

1. Remove the two screws in the center of the tray assembly.
2. Pull the ejector handles on the left side, top and bottom of the tray assembly to release the board assembly from the internal connectors. Refer to Figure 2.

- 3.** Pull the tray assembly straight out and place on a flat surface. This assembly is heavy. Move it slowly and be sure it is properly supported.

Removing Memory DIMMs

To remove the memory modules from the CPU board, do the following:

1. Locate the memory DIMMs in the system unit, as shown in Figure 3.

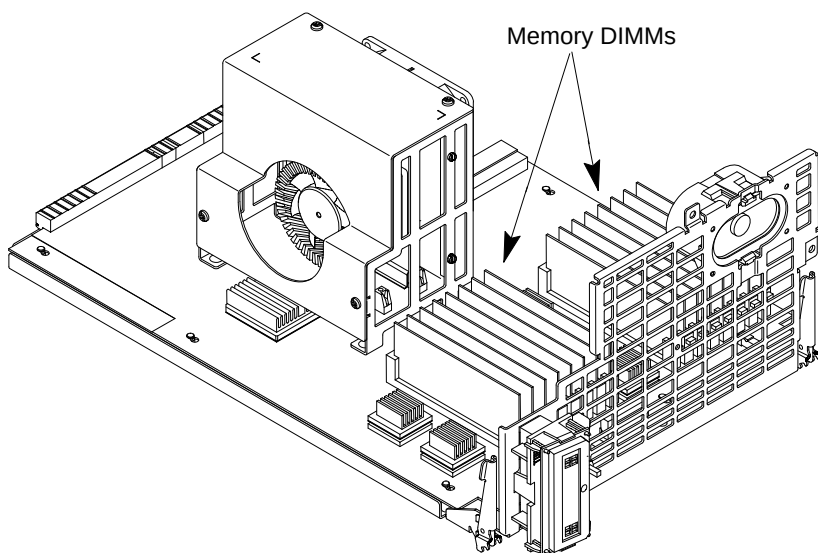


Figure 3. Memory DIMM Location

1. To remove a memory DIMM, push the ejector handles on the side of the DIMM. Lift the memory DIMM up and out of the connector. Place the memory DIMM on a static-free service. Figure 4 shows how to remove the memory DIMM.

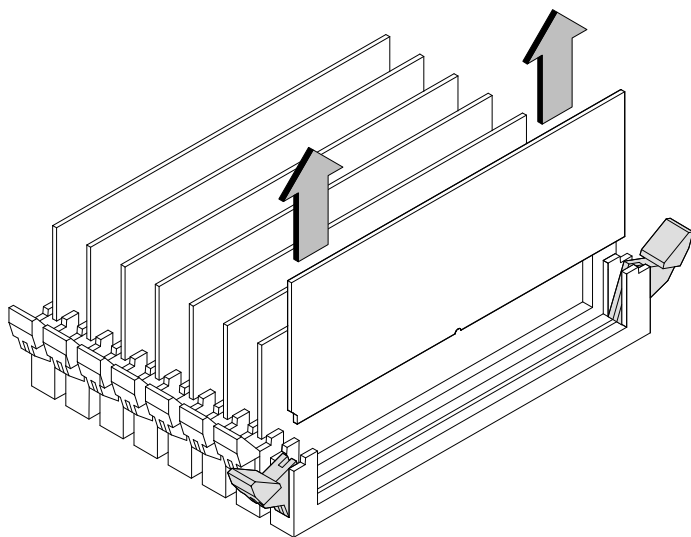


Figure 4. Removing Memory DIMMs

Installing Memory DIMMs

Install the memory DIMMS in the new J280 main tray as described in the following procedure:

1. To install a memory DIMM, open the ejector tab and line the DIMM up with the guides as shown in Figure 5, making sure to put the notched end toward the ejector handle .**READ NOTICE** below and follow slot guide shown in figure 6.
2. Close the ejector tabs.
3. Press firmly and evenly on the DIMM to ensure that it is fully seated.

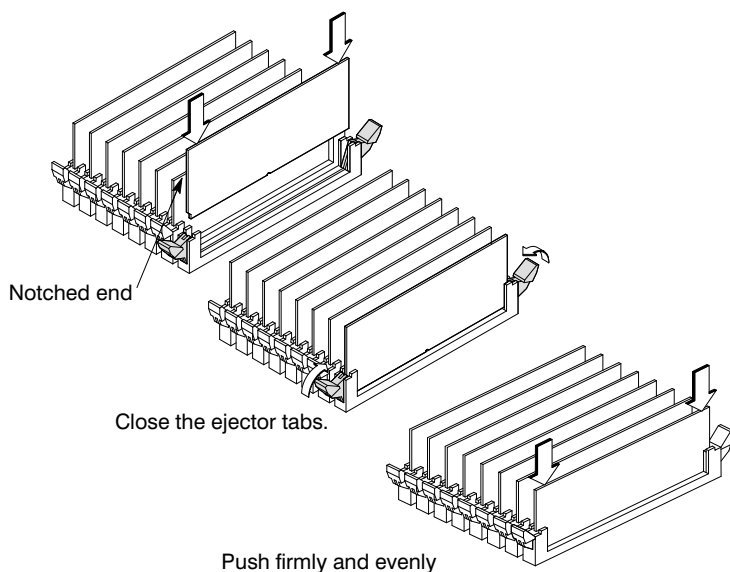


Figure 5. Installing Memory DIMMs

NOTICE: Install memory DIMMs in the J280 DIMM slots as pairs (DIMMs must be same size to make a pair). Load DIMMs in ascending pair order (e.g. pair 1 then pair 2). Use figure 6 as a guide.

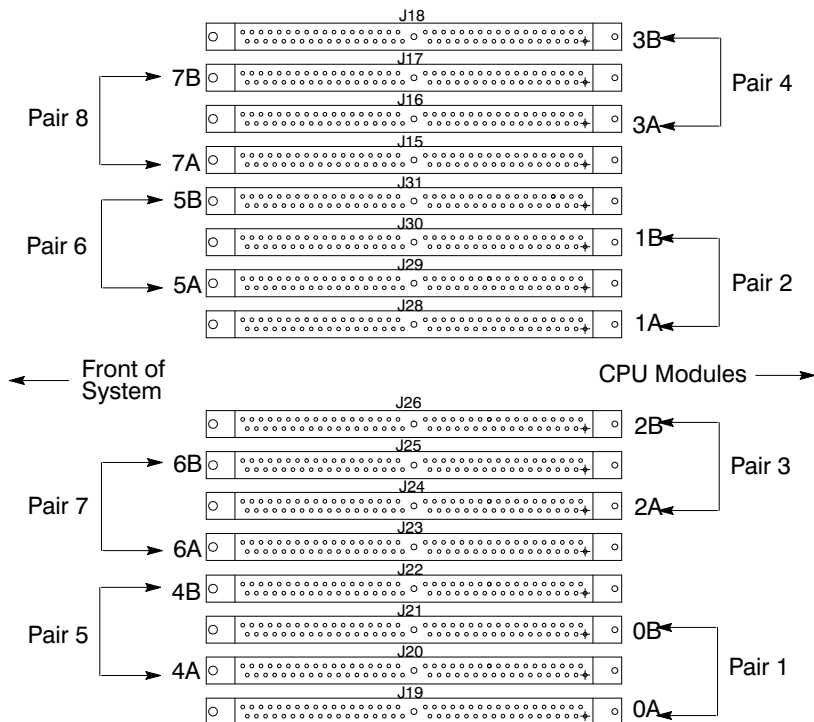


Figure 6.J280 Memory DIMM Slot Guide

Installing the New J280 Main Tray Assembly

Install the new tray assembly as described in the following procedure:

1. Pull Main Tray Ejector Handles to open position.
2. Align the top of the main tray assembly with the guides on the system unit. Then, align the bottom with the guides and slide the main tray assembly into the system unit. Refer also to the installation label on the back of the assembly.

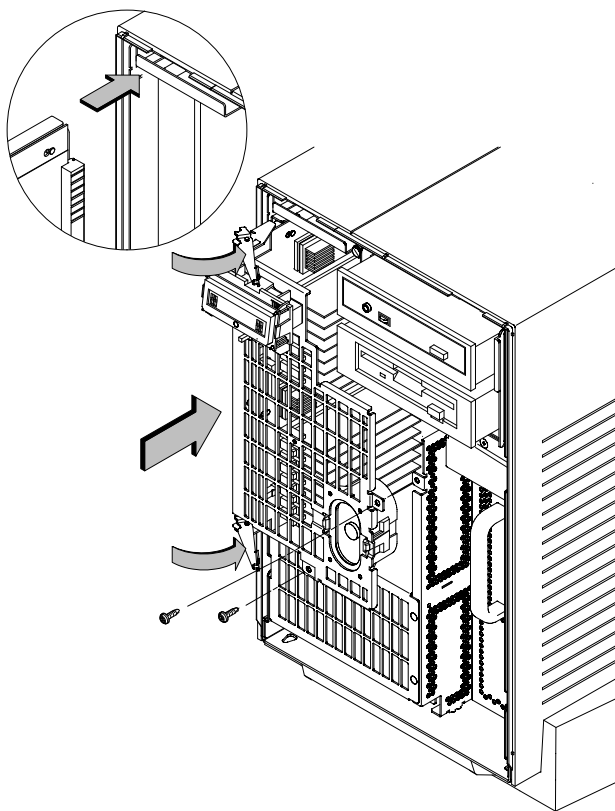


Figure 7. Replacing the Main Tray Assembly

3. Replace the two main tray retaining screws, as shown in Figure 7.

Installing the Storage Tray Fan Assembly

Follow the procedures for installing the Storage Tray Fan Assembly in *Storage Tray Fan Installation* manual (HP Part Number A4081–90010). Follow the procedures starting on page 4 of the manual(Removing the Storage Tray Assembly), return to this document and the next procedure at the completion of Installing the **Storage Tray**.

Changing the Model Label

Before replacing the front bezel, you need to remove the old model label. Follow these steps to remove the old model label and replace it with the new model label.

1. Using a flat blade screwdriver on the inside of the front bezel, break off the plastic tab behind the sheet metal as shown in Figure 8.

CAUTION: Be sure to wear safety glasses when breaking off the plastic tab. Failure to do so can result in injury to your eyes.

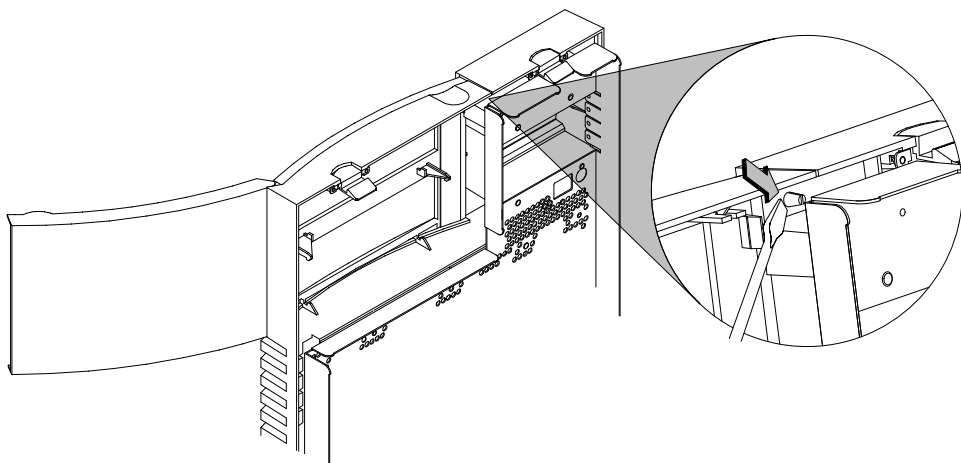


Figure 8. Breaking Off the Plastic Tab

2. Turn the front bezel over so that you are looking at the outside.
3. Using the flat blade screwdriver, gently pry up the model label at each of the three sets of plastic grooves holding the label to the bezel. Refer to Figure 9.

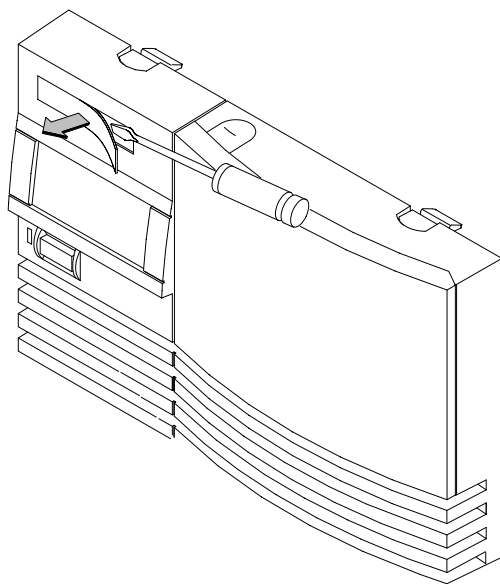


Figure 9. Prying Off the Old Model Label

- 4.** Press the new model label into the three grooves.

Replacing the Front Bezel

When replacing the front bezel, follow these steps, ensuring that the top latches snap completely into position:

1. Line up the two guide pins on the bottom with their guides and swing the panel up.
2. Push the front bezel against the two locking tabs at the front of the system unit and ensure they lock in place.

CAUTION: Do not attempt to operate the workstation with the front bezel removed. The bezel is needed to ensure proper air flow for system cooling.

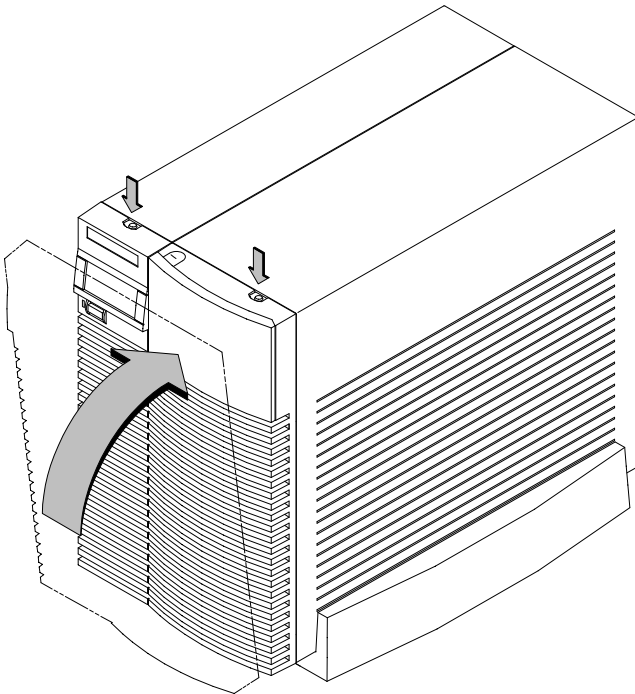


Figure 10. Replacing the Front Bezel

Installing the DC to DC Converter

Removing the SCSI Bulkhead and I/O Assembly

Prior to the installation of the DC to DC converter, the SCSI Bulkhead must be loosened and the I/O Assembly removed as detailed in the following steps:

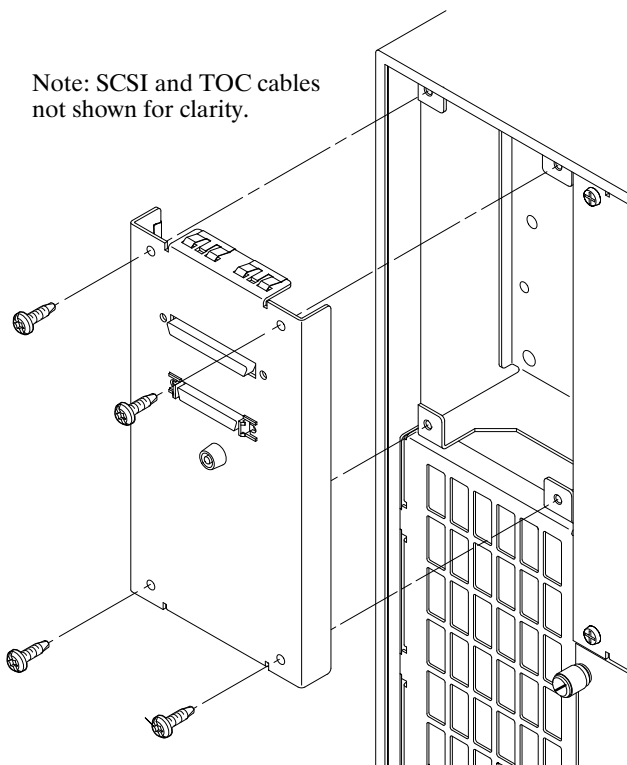


Figure 11.SCSI Bulkhead removal

1. Remove the four screws from the SCSI Bulkhead. Do not detach the cables, the bulkhead can be allowed to hang down **See figure 11.**

Removing the I/O Assembly

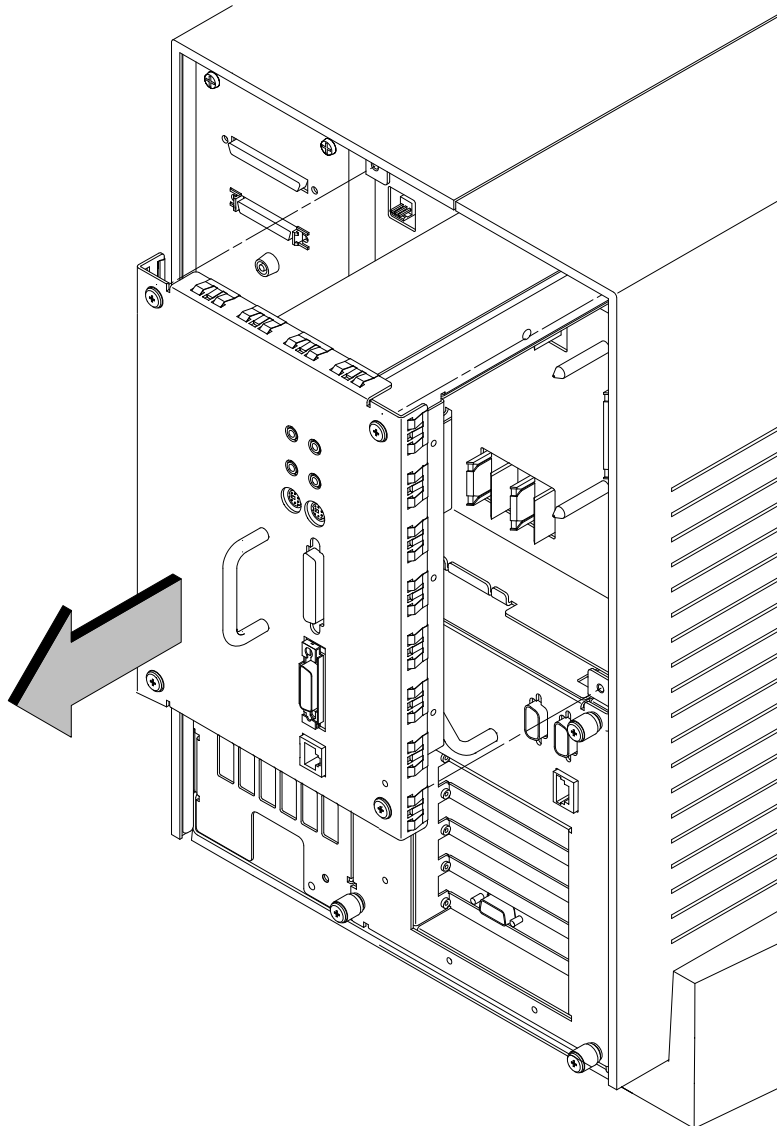


Figure 12.I/O Assembly removal

- 1.** Loosen the the four screws on the I/O Assembly.

2. Slide out the I/O Assembly using the handle, and set it aside.

Installing the DC to DC Converter

To install the DC to DC Converter follow these steps:

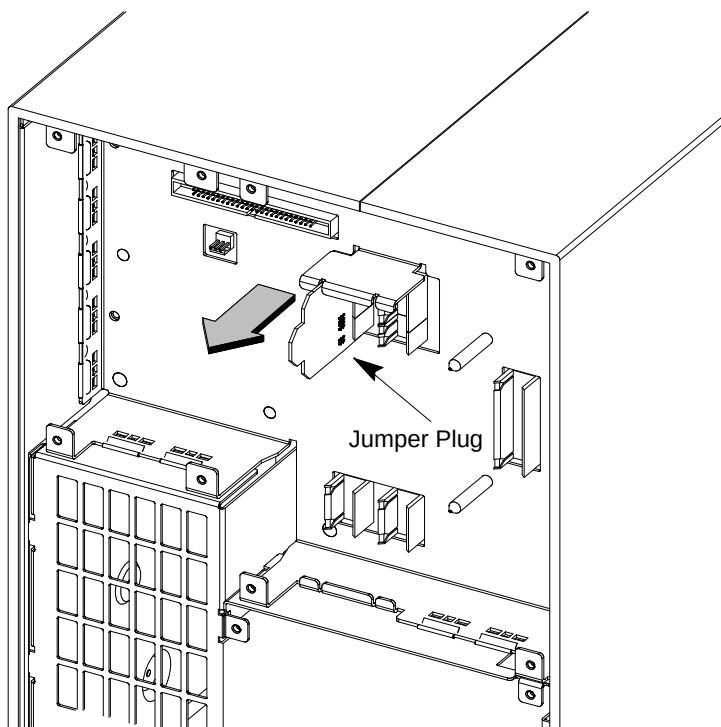


Figure 13. Backplane Jumper plug removal

1. Remove the Backplane Jumper Assembly as shown in figure 13.

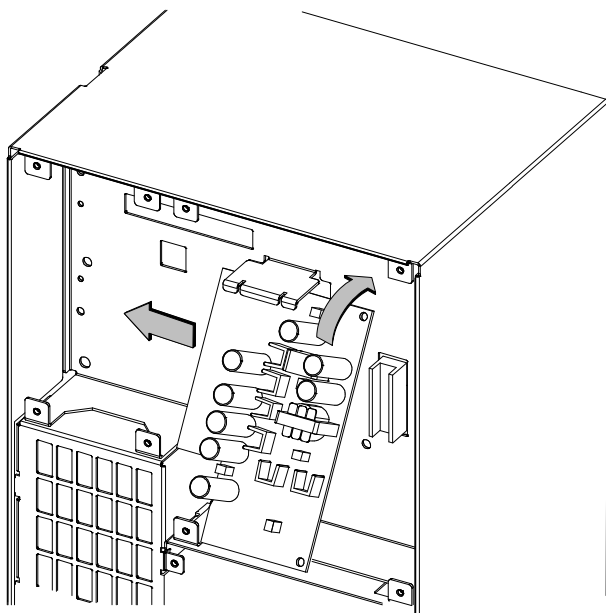


Figure 14.DC to DC Converter placement

2. Tilt the DC to DC Converter slightly forward (top edge) and slide to the left as shown in fig 14.

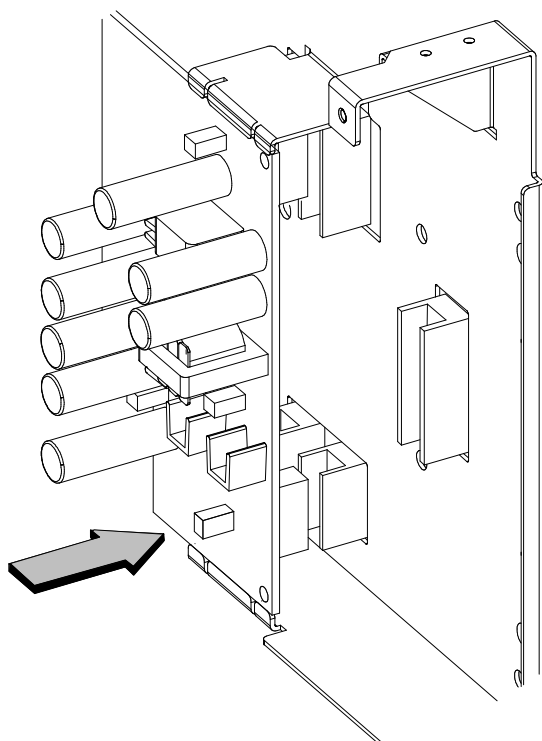


Figure 15.DC to DC Converter connector alignment

- 3.** Align connectors as shown in fig 15
- 4.** Push the converter evenly to seat connectors.

Reinstalling the SCSI Bulkhead and I/O Assembly

The reinstallation of the SCSI Bulkhead and the I/O Assembly are detailed in the following steps:

Note: SCSI and TOC cables not shown for clarity.

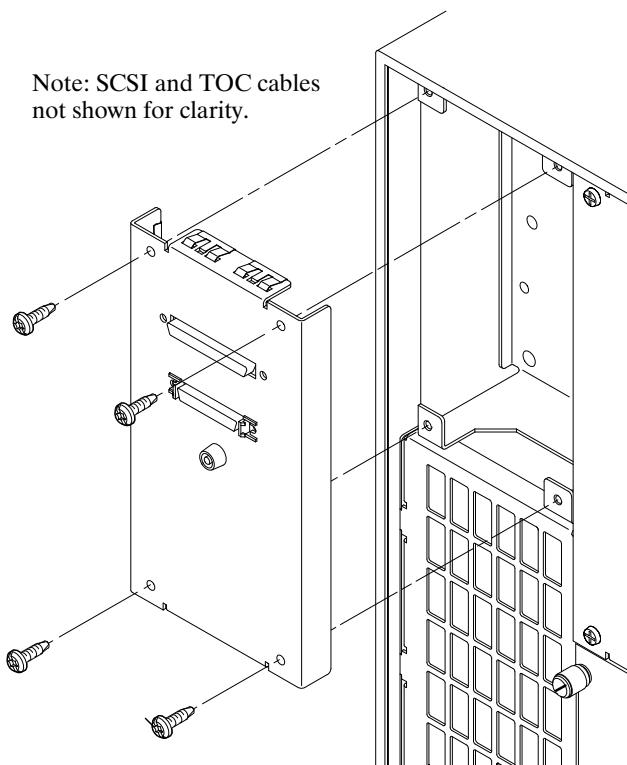


Figure 16.SCSI Bulkhead installation

1. Secure the SCSI Bulkhead with four screws.

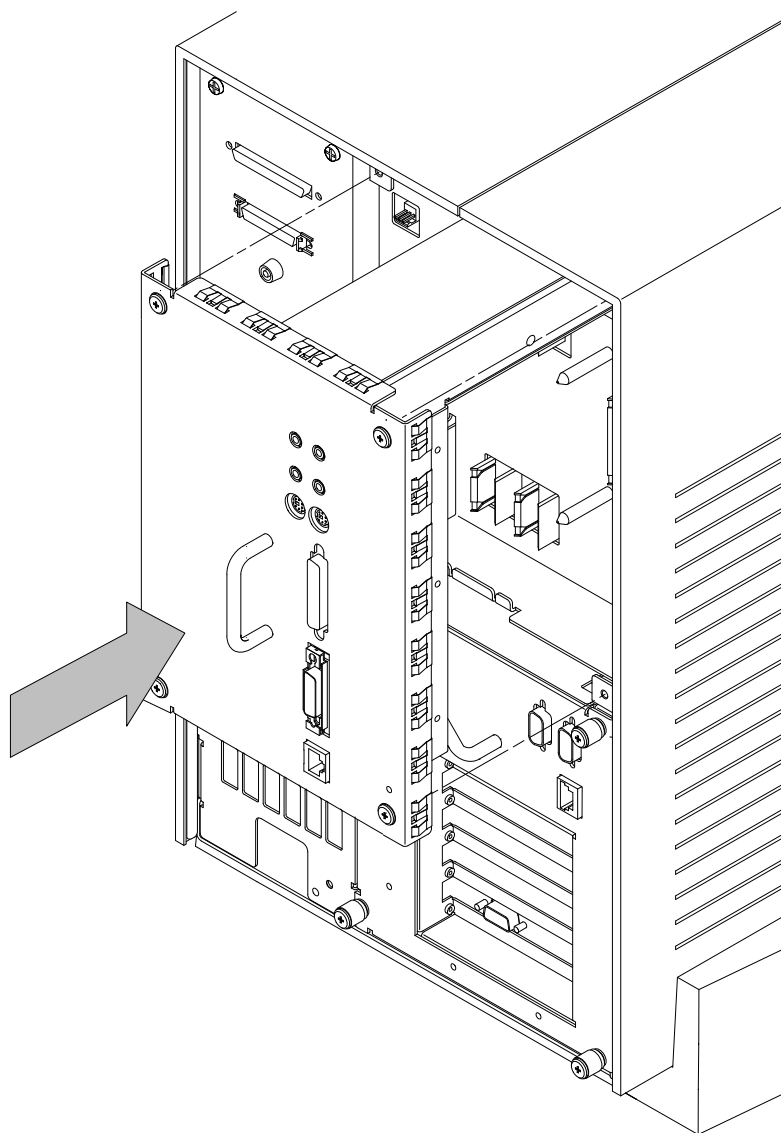


Figure 17.I/O Assembly installation

1. Slide the I/O Assembly in position using the handle.
2. Tighten the the four screws on the I/O Assembly.

Verifying System Operation

To verify the system operation, follow these steps:

1. Reconnect the power cables and any other cables that were disconnected when opening the workstation.
2. Power on the system.

When the system is booted for the first time, you are prompted for the LAN ID. Enter the LAN ID that you recorded in the section, “Powering Off the System”.

Note the status message on the LCD display. Once the power on diagnostics have completed and the system has booted, the second line on the LCD display should read “HP J280.”

If the system fails to boot or power up refer to the *Solving Problems* chapter of the *J 280 Owners Guide*.

If you have any questions, suggestions, or problems with our hardware, software, or documentation, please call 1–888–301–5932 (US & Canada) or contact the HP Response Center for your country.

Filling Out the Return Form and Returning Original Parts

Follow the instructions on the *Hewlett Packard Upgrade Return Instructions* sheet included with the upgrade return kit. You must return the original parts to Hewlett Packard according to those instructions.

